

THE BOTANY OF THE VICTORIA EXPLORING EXPEDITION  
(SEPTEMBER 1860—JUNE 1861)  
AND OF RELIEF CONTINGENTS FROM VICTORIA  
(JULY 1861—NOVEMBER 1862)

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Introduction

The Victoria Exploring Expedition was by no means the first to make botanical observations and collections in the far W. of New South Wales or the border regions of South Australia and Queensland. Earlier investigators in these tracts were:

1. MAJOR T. L. MITCHELL who, in July 1835, came down the Darling from present Wilcannia to near Menindee. His official botanist, Richard Cunningham, had perished near Dandaloo on the Bogan R. during May, but Mitchell collected a few plants along the Darling, including the original specimens of Sweet Fenugreek or 'Menindee Clover' (*Trigonella suavissima*) which he described as 'certainly the most interesting plant hitherto found by us'—he was impressed by its powerful sweet aroma and value as a delicious substitute for spinach.

Again, during May and June 1836, Mitchell was in the Murray Valley between Wentworth and Swan Hill, from which area he collected the type material of at least 8 plants. All his botanical gatherings were studied in England by Lindley who published any novelties as footnotes to Mitchell's narrative *Three Expeditions into the Interior of Eastern Australia* (1838).

2. CAPTAIN CHARLES STURT who, from Sept.—Oct. 1844, journeyed 100 m. from Wentworth to Menindee along the Darling valley, turning then NW. into the Barrier Ra. Between August and November 1845 Sturt covered a large part of the NE. corner of South Australia (including Cooper Cr.), also Stokes Ra. in Queensland and beyond Birdsville to a point on the Queensland-Northern Territory border between the Hay and Field R. courses. From this exploit Robert Brown in England received approximately 100 plant species, describing the new ones as an appendix to Sturt's *Narrative of an Expedition into Central Australia* (1849).

3. AUGUSTUS GREGORY who, in May—June 1858, travelled down the Cooper and Strzelecki Cr. from SW. Queensland to search for traces of Dr Leichhardt. F. Mueller contributed a paper 'Enumeration of plants collected by A. C. Gregory, Esq., along and near Cooper's River and its tributaries in Subcentral Australia' which was published as part of the *Votes and Proceedings of the Legislative Assembly of New South Wales* for the Session of 1858-59, 2: 4-10 (1859). 70 species were listed, 5 being described by Mueller as new to science.

4. JOHN DALLACHY and the REV. T. H. GOODWIN, who also followed the Darling from Wentworth as far as Wilcannia, collecting many plants for Mueller in Nov. 1858.

Although a century has now passed since Robert O'Hara Burke and William J. Wills began their ill-fated journey across Australia, and although the Victorian Government's expenditure on this undertaking was far more lavish than for any other exploratory venture, no comprehensive account of the botanical results has ever been published. Indeed, the only printed references available are F. Mueller's descriptions in Latin of sundry new species in Vol. 3 of his *Fragmenta Phytographiae Australiae* (1863), the citations (often erroneous) of collections scattered through the 7 volumes of G. Bentham's *Flora Australiensis* (1863-78) which embrace 324 species (16 of which are not now represented in Melbourne Herbarium by any specimens from the Expedition), and a few letters from various members of the expedition published in the Melbourne *Argus* between Nov. 1860 and Aug. 1861. To these sources may be added the list of 114 species collected on Howitt's subsidiary expedition to far NE. South Australia in 1862, which was published by Mueller in his *Annual Report* to Parliament, 15 Apr. 1863. All botanical material came to Mueller who, as early as 27 May 1861, exhibited at the Royal Society of Victoria 'some plants collected by Dr Beckler'. These and subsequent gatherings are now housed in the National Herbarium, Melbourne, where there is evidence that, during the main expedition and two relief parties under Howitt's leadership, some 708 separate collections of vascular plants were made. At least 393 species are involved in this total, including type specimens of 37 new species and 3 varieties. Apparently no bryophytes, lichens or fungi were collected.

A concise review of who were the botanical collectors, where they went at various times, and what they found, is a desideratum that the following pages endeavour to meet. As a background to any such account, it would be advantageous to give a brief chronological résumé of the principal movements in the main expedition and various relief parties, thus:

1860

- 20 Aug.—Expedition leaves Melbourne, taking 13 days to make Swan Hill. Dr Herman Beckler is the medical officer and botanist; Dr Ludwig Becker the artist, naturalist and geologist.
- 12 Sept.—Crossing of the Murray into New South Wales.
- 15 Sept.—Arrival at Balranald, proceeding then to L. Paika, Tjerrikenkom, Bokoo, Prungle and Arumpo homesteads, Garnpang water-hole, and the banks of the Darling at Pooncarie by 25 Sept. The leaders, with Professor George Neumayer, had gone ahead of the main party which did not reach the Darling until 4 Oct. Neumayer returned to Melbourne, after having helped to organize observations in physical science and astronomy. The expedition then moved up the E. bank of the Darling, past Bilbarka and Tolarno to Kinchega where it crossed to Mr W. Wright's station on the W. side.
- 16 Oct.—Arrival at Menindee, 2 months after leaving Melbourne, and establishment of the base camp a few miles upstream at L. Pamamaroo. George J. Landells, second-in-command, resigns after repeated quarrels with Burke and goes back to Melbourne; Wills, the young surveyor, is appointed to take his place.
- 19 Oct.—Burke and Wills, Brahe, Wright (who was persuaded to join the party as local guide) and 6 others push on ahead toward Cooper Cr., while scientists Beckler and Becker stay with the remaining men and supply of stores on the Darling.
- ±30 Oct.—From Torowoto Swamp (about 44 m. ESE. of Milparinka and 70 m. S. of the Queensland border) Wright is sent back to Menindee with instructions

to bring up the remainder of the party and supplies without undue delay—he actually delayed 3 months, spelling disaster for the whole expedition.

- 11 Nov.—Burke, Wills, Brahe and the 6 men with them reach Cooper Cr. and form another base depot, where they await Wright's appearance with the stores.
- 16 Dec.—After waiting 5 weeks, and impatient at Wright's dilatory behaviour, Burke strikes out for the Gulf of Carpentaria in company with Wills, King and Gray, leaving Brahe in charge of 4 men at Cooper Cr. with instructions to remain there 3 months until his anticipated return within that period.
- The expedition was thus split into three distinct, isolated parties, with virtually no means of intercommunication. Ernest Favenc, in his *History of Australian Exploration from 1788-1888*, p. 211 (1888), makes a trenchant criticism of this situation in the following terms:

Burke, during the most important part of his journey, left behind him his botanist, naturalist and geologist, and started without even the means at his disposal of following up any discoveries he might make. His sole thought evidently was to cross to Carpentaria and back, and be able to say that he had done so—a most unworthy ambition . . . this tramp, for perverse absurdity, stands unequalled. . . . After all the pains and costs expended in the organization of this expedition, we have now the spectacle of the main body, including two of the scientific members, loitering on the outskirts of the settled districts.

1861

- 11 Feb.—Burke, Wills and company reach the Gulf country (near the mouth of Norman R.), but cannot get any glimpse of the sea because of a wide impassable belt of mangroves around that flat muddy coast. Much weakened, they commence the tedious journey back on 21 Feb., apparently without collecting a single natural history specimen.
- Attention may here be diverted to the main base camp on the Darling, 1030 m. S.
- 26 Jan.—Wright, Beckler, Becker and others set out at last from L. Pamamaroo near Menindee and head N. through Scrope Ra., Mootwingee, the Noon-thorangee, Teltawongee and Wonominta Cr., past Mt Koonenberry and Paldrumata to Torowoto Swamp by 12 Feb. Soon after attaining this point (70 m. short of the Queensland border) Wright records that the advance of summer drought and the ravages of scurvy 'reduced the effective strength of my party to an alarming extent'. For two more months he struggles on, with gradually exhausted men.
- 6 Apr.—Wright makes camp on the Bulloo R., ahead of Beckler who was attending to two very sick men at Kooliatoo Cr., and builds a stockade there. He is attacked by hostile aborigines.
- 22 Apr.—Wright's Bulloo stockade is attacked again, within 24 hours after the arrival of Beckler, Becker and Purcell. Stone dies this day, Purcell succumbs the day following and Becker on the evening of 29 Apr.
- By the 27 Apr. Wright had decided on an immediate retreat to Torowoto 'to recruit the sick and obtain fresh stores from the Darling'.
- 21 Apr.—Brahe, having waited more than the requested 3 months for Burke's return and having failed to be re-provisioned from the Darling, abandons the depot on Cooper Cr. A week later (on the evening of 28 Apr.) he finds Wright immobile with sick and worn-out men at the Bulloo R. camp.
- 3 May—Brahe and Wright set out together for Cooper Cr. again, arriving on 9 May, in a last attempt to ascertain whether Burke had come back from the Gulf. They fail to note any evidence that Burke, Wills and Gray had actually reached the depot on 21 Apr.—only 7 hours after Brahe's departure! From the

Bulloo stockade Brahe, Wright and their united parties make all possible speed back to Menindee (reached on 18 June) whence Brahe comes on alone to Melbourne with dispatches. A fourth man (Patton) died on 30 May.

- 29 June—Wills dies on Cooper Cr., and 2 days later Burke succumbs about 15 m. upstream, after their futile attempt to reach Adelaide via Mt Hopeless station. King is cared for by aborigines, but Gray had perished just before the fateful return to Cooper Cr. on 21 Apr.

Now follow the activities of the 5 relief parties, of which A. W. Howitt's 2 contingents were the most productive:

- 5 July—Howitt leaves Melbourne with party of 12 (including Brahe) to search for Burke and Wills. He stays 5 days in Swan Hill and reaches Menindee sometime before 3 Aug. when he communicates with Melbourne.
- 13 Sept.—Howitt reaches Cooper Cr. depot, via Stokes Ra., and 2 days later King is discovered still alive, although 'wasted to a shadow'. By 21 Sept. the bodies of Wills and Burke are found and buried. Howitt and party then hasten S. again, Brahe racing ahead and reaching Bendigo with the tragic news on 2 Nov.
- 9 Dec.—Howitt sets out on a second journey to Cooper Cr., primarily to bring back the remains of Burke and Wills for burial in Melbourne; he arrives at the depot on 2 Mar.

On this expedition, of 10 men, there was no need for haste, and Howitt was away for just a year. Between Mar. and Sept. 1862 he made 5 separate sorties from Cooper Cr.—S. along Strzelecki Cr. to L. Blanche and the N. parts of Flinders Ra., NW. across the Diamantina R. to beyond Birdsville. He gained the confidence of the Dieri aboriginal tribe and accumulated much valuable information.

## 1862

- 22 Oct.—Howitt arrives at Blanchewater station for the fourth time (from Cooper Cr. depot), now bearing the remains of Burke and Wills. He is at Angipena station on 21 Nov. and Adelaide on 8 Dec.
- 27 Dec.—Howitt reaches Melbourne by ship from Adelaide, and the public interment of Burke and Wills's remains takes place on 21 Jan. 1863.

Meanwhile, during the latter part of 1861 and early in 1862, 3 other search parties had been operating simultaneously:

1. JOHN MCKINLAY (16 Aug. 1861—June 1862) had gone from Adelaide N. to Cooper Cr. depot and across Queensland to the Gulf (as near to Burke and Wills's route as possible), then SE. through North Queensland to the coast at Port Denison.

2. WILLIAM LANDBOROUGH (14 Aug. 1861—21 May 1862) proceeded from Brisbane by ship to the Gulf of Carpentaria near the mouth of Albert R., then overland to the Warrego R. settlements.

3. FREDERICK WALKER (7 Sept. 1861—early Apr. 1862) went from Rockhampton NW. to the Gulf.

Into this rather complex framework of events fit the several botanical collectors associated with the Victoria Exploring Expedition, and not one of them was a trained botanist. No plant specimens would seem to have been gathered during Walker's journey. McKinlay's search party from Adelaide and Landsborough's from the mouth of Albert R. (on the Gulf) were each responsible for several plant

recordings. Diedrich Henne was botanical collector during Landsborough's voyage N.; he gathered specimens on Whitsunday, Gloucester and Cairncross I. in Torres Str., Curtis, Palm and Sweers I. (at the S. extremity of the Gulf), but did not accompany Landsborough overland through N. Queensland. These few botanical collections, representing chiefly tropical species, have little bearing on the achievements of the Victoria Expedition itself and they have not been taken into consideration in the present paper; suffice it to say that McKinlay brought back excellent material of the nardoo plant (*Marsilea drummondii*) which had helped to keep King alive after the deaths of Burke and Wills.

### Botanical Collectors

#### DR HERMAN BECKLER, MD

Pre-eminent among the contributors of plant specimens was the medical officer and botanist to the original expedition. His 475 collections, embracing slightly more than 300 species, were made between the Murray R. at Swan Hill (12/9/1860) and just beyond the Queensland border (31/3/1861, at Kooliatoo Cr. toward Bulloo L.); Beckler then returned to the Darling at Menindee, and apparently made his last collection on 29 June 1861. He was a careful, painstaking collector who had already achieved distinction in SE. Queensland (Moreton Bay, Mt Mitchell and Warwick districts) as well as in the Clarence and Hastings R. regions of New South Wales. His field labels in Melbourne Herbarium indicate that Beckler obtained specimens from at least 26 collecting sites, while with the Victoria Exploring Expedition; the 12 between Swan Hill and Menindee cover one month's work (14 Sept.—14 Oct. 1860) during the Expedition's early phase—viz. Wakool R., L. Yanga, Balranald, L. Paika, Tjerrikenkom, Prungle and Arumpo station homesteads, Coles Waterhole, Garnpang, Bilbarka on the Darling and Mr Cloud's station near Tolarno.

That Beckler was also no mean artist is apparent from several sketches bearing the initials 'H.B.' and now accompanying those of Ludwig Becker, the official naturalist, in the archives of Melbourne Public Library. Much of his botanical material came from around L. Pamamaroo on the Darling, where he was 'bogged down' during W. Wright's long period of inactivity. One pleasant and fruitful diversion at this time was an excursion to Scrope Ra., about 43 m. E. of Broken Hill, from 5-7 November; he was accompanied by Mr Hodgkinson and an aborigine, and they camped at Kokriega Well (Burke's Camp No. 36, now called 'Burke's Cave'). Of these wild, rocky conglomerate hills (6-7 m. across and estimated as up to 500 ft high) Beckler wrote on 13 November 1860 (Letter to Dr John Macadam, published in the Melbourne *Argus* of 4 Dec. 1860. Two other 'Notes on Plants' were received by the Exploration Committee on 5 Feb. 1861, but cannot now be traced.):

After having found some plants, new to me, on the rocky parts near the gully, I hoped to find a greater variety still between the hills. In this I was mistaken, the vegetation of the central parts being much poorer than the rocks and the gullies on the circumference of the mountains. . . . Groups of a small kind of *Casuarina* cover parts of the hills, the ground being covered with different salsolaceous plants which prevail all over the hills. I found a good few different herbs of the *Malvaceae*, a few grasses, two or three species or varieties of a genus of the (?) *Saxifragaceae* ["*Saxindarias*" in newspaper report], a shrub with a beautiful blossom like a *Styphelia*, and some composite plants—one of which, growing on rocks and in crevices, exhaled such a disagreeable odour that I could not stand near it for many minutes without feeling my head ache. . . . Most of the shrubs growing in the hills are just now in blossom. I collected as many specimens as I could.

At least 50. species were represented among the plants collected on Scrope Ra. which, on Beckler's field labels, is rendered as 'Goginga Mountains'—probably his

attempt to spell the aboriginal sound otherwise interpreted as 'Kokriega'. From a high eminence on Scrope Ra., Beckler saw a 'long, considerable range of mountains' bordering the W. horizon and seeming to be from 35 to 70 m. distant. This, undoubtedly, would be the Barrier Ra. which he never reached; but in *Flora Australiensis* (1863-78) Mueller and Bentham incorrectly assign many Scrope collections to the former locality, even stretching the limits of the 'Barrier Range' to include remote Mt Koonenberry (in the Coturaundee Ra., some 110 m. NE. from Broken Hill).

Between 19 Dec. 1860 and about 10 Jan. 1861 Beckler journeyed from Menindee N. to Torowoto Swamp (44 m. ESE. of Milparinka), and secured samples of at least 60 plant species during the round trip of some 330 m. His four principal collecting places were Noonthorangee Cr. (24 Dec.), Torowoto Swamp (27-28 Dec.), Mt Koonenberry (31 Dec.) and Mootwingee (3 Jan.)—rendered on his field labels as 'Nandurungee', 'Duroadoo', 'Goningberi' and 'Mutwanji' respectively. Wright had sent him to the relief of Macpherson and Police-trooper Lyons, of whom nothing had been heard since they set out to overtake Burke and party with dispatches from the Exploration Committee in Melbourne. Beckler found the two men, subsisting on 1 pint of nardoo per day in the vicinity of Torowoto; having lost their horses, they were destitute and faced with starvation in the heat of an inland summer. About this time, a consignment of plant specimens from Menindee reached Melbourne, for in Feb. 1861 Mueller described in his *Fragmenta Phytographiae Australiae* (2: 140) the saltbush *Kentropsis* [= *Bassia*] *ericantha*—the Expedition's first botanical novelty to appear in print.

Only a fortnight after bringing Macpherson and Lyons back to the Darling camp, Beckler moved N. again over the same ground with Wright's whole party. Limited collections were made at Nootumbulla Cr. and nearby Bengoro Ra. (4-6 Feb.), Torowoto Swamp (13 Feb.—3 Mar.), Caryapundy Swamp (19 Mar.) and Kooliatoo Cr. (31 Mar.); the last locality, just beyond the Queensland border toward Bulloo L., apparently marked Beckler's most northerly collecting point. Thereafter he was fully preoccupied in caring for sick and exhausted men: four died during the drought-stricken, tragic months of April and May 1861, including the Expedition's artist-naturalist Dr Becker (on 29 April). In the final week of Wright and Brahe's combined retreat to the Darling, Beckler again collected some specimens at Wonominta Cr. (12 June), Mootwingee (13 June), 'Bodurga to Pilpa' (15 June) and 'Goginga Glen' (17 June). His last collecting days would seem to have been 28 and 29 June when a few plants were taken from 'sandhills near the Darling'—presumably at L. Pamamaroo.

It is regrettable that Herman Beckler was denied the opportunity to collect beyond the borders of New South Wales. He remained at Camp 1 on the Darling until after the arrival of A. W. Howitt's relief party from Melbourne at the beginning of August. Letters from Howitt (3 Aug.) and Beckler (6 Aug.) at Menindee reached the Exploration Committee on 22 Aug. 1861, the doctor remarking:

The collection of plants and a small case, filled with different objects of natural history by the late Dr Becker, will be taken down by the steamer which is now on her way to this place.

Beckler must have left for Melbourne about the end of that month, because he was available to accompany Professor G. B. Neumayer to the Mallee on 28 Scpt. They went north-westerly through Bendigo, Charlton, Brim, L. Corong, Pine Plains, Kulkylne, Wentworth, Renmark and Blanchetown, reaching Wellington at the mouth of the Murray on 14 Dec. On 30 Dec. Beckler was back in Melbourne, under-

going interrogation at the final meeting of the Royal Commission of Inquiry into the conduct of the Burke and Wills Expedition; his recent plant collectings from W. Victoria and the Murray Mallee were handed over to F. Mueller. Thereafter, he fades completely from the botanical scene, and nothing is known concerning where and when he died.

A difficulty has been to identify and fix some of the localities mentioned on Beckler's field labels. His pencilled handwriting is often poor and indistinct, so that Mueller's label-writers misconstrued many spellings which were further corrupted in the pages of Bentham's *Flora Australiensis*. For instance, 'Goginya', 'Goyinga', 'Guginga', 'Gozinga', 'Yayinga', 'Yayinya', 'Yuyinya', 'Yuyingee' and even 'Toguya', are all obvious variants of the 'Goginga' used by Beckler; in fact, they refer to Scrope Ra. in the vicinity of Kokriega Well (now Burke's Cave). The only place names that have not been identified are 'Nangarna' (or 'Nangawera') and 'Yellow-inchi', both between Mt Koonenberry and Torowoto Swamp; the former may possibly be equivalent to Narnumpy. [See p. 255 for a Chronological Arrangement of Dr. H. Beckler's Collecting Places, with his spellings and sundry variations by Mueller and Bentham in parenthesis.]

#### WILLIAM WRIGHT

The leader of the unfortunate supply party from Menindee collected a few plants himself, upon arrival at Cooper Cr. with Brahe early in May 1861 (e.g. *Glinus orygioides*, *Abutilon theophrasti*, *Eremophila duttonii* and *E. macdonnellii*).

#### DR W. F. WHEELER

Wheeler, as surgeon on A. W. Howitt's first relief contingent to search for Burke and Wills, reached Menindee on 3 Aug. (Beckler being still in camp there) and Stokes Ra. on 4 Sept. 1861. He also acted as botanical collector but gathered little or no material in New South Wales, apparently considering that Beckler had adequately worked the route from Swan Hill to the Queensland boundary. Wheeler's collection, representing at least 70 species, came from 'between Stokes Range and Cooper's Creek' (a distance of 50-60 m.); it included the types of several new species, viz: *Isotropis wheeleri*, *Euphorbia wheeleri*, *Leschenaultia divaricata*, *Scaevola patens* (= *S. depauperata* R.Br.) and *Gnephosis eriocarpa*.

He arrived back at the Pamamaroo depot near Menindee on 28 Oct., staying there with Vining, Sampson and Calcott to safeguard the stores while Howitt came on to Melbourne with the remainder of his party and King (sole survivor of Burke's small team that reached the Gulf). On 22 Nov., at Menindee, Dr Wheeler and his three companions tendered their joint resignation from Howitt's Contingent Exploration Party. But, after Howitt returned with a second expedition of 10 men on 1 Jan. 1862 (Dr J. P. Murray being the new surgeon and plant collector), Wheeler agreed to remain at the Darling R. camp and attend to an injured Sepoy camel-man. He stayed on for more than two months, reporting his arrival at Wentworth with the Sepoy on 24 Mar. 1862.

#### DR JAMES P. MURRAY

To join Howitt's second expedition in the dual capacity of surgeon and plant collector, Dr Murray had been granted 6 months' leave of absence, without pay, from the Staff of Melbourne Hospital. He met Howitt at Swan Hill on 14 Dec. 1861, and on New Year's Day 1862 they arrived at Pamamaroo depot where

Murray relieved Dr Wheeler of further botanical work, as the latter had in his turn taken over from Dr Beckler. This time the party proceeded N. via Mt Murchison near Wilcannia (19 Jan.), Kopayko Tank (27 Jan.), Torowoto Swamp (2 Feb.) and Stokes Ra. (16 Feb.), reaching Cooper Cr. depot on 2 Mar. Murray, who had done no collecting until then, was placed in charge of the depot camp; from its precincts he amassed the most comprehensive collection of plant specimens made on Cooper Cr. up to that time, viz. 96 species (including types of *Plagiosetum refractum*, *Acacia murrayana*, *Calotis porphyroglossa* and *Myrioccephalus rudallii*).

Except for one long excursion with Howitt—to the Diamantina R. above present Birdsville in July—Dr Murray remained at Cooper Cr. from 2 Mar. to 10 Oct. 1862. During those 7 months he established a vegetable garden, as a protection from scurvy, and when his party finally left the Creek depot they had not consumed all the vegetables raised. Howitt, in reporting (22/10/1862) to the Exploration Committee from Blanchewater Station, S.A., remarks that Dr Murray—

besides having always been zealous for the interests of the Expedition, has gained the perfect confidence of everyone by the skill and judgment he has shown in the treatment of such cases as came under his hands.

On 4 July Howitt and Murray travelled N. from Walkowinnie on Cooper Cr. (a day's march downstream from the depot) to Kyejeron Cr. and L. Apanpurra in the L. Goyder system, then NW. across Sturt's 'Stony Desert' to Goyder's Lagoon by 11 July. Three days later they reached the Diamantina R. near Salmonville, 14 m. upstream from Birdsville. In their records this watercourse is referred to as 'Wills's Creek', but it should not be confused with the present Wills Cr. between Boulia and Mt Isa. A week was spent in exploring up and down the Diamantina, across the Queensland border. At a point about 20 m. to the N. of Birdsville the very localized, rare *Acacia peuce* was discovered and type material collected. Types of *Ptilotus murrayi* and *Zygophyllum howittii* were also secured in this region. The party followed almost the same route back, reaching Goyder's Lagoon on 25 July and Cooper Cr. depot on 2 Aug.

Murray's total plant collections embrace about 130 species. Combined with those of A. W. Howitt, they were worked up by F. Mueller who listed most of them, with localities, as a special section in his *Annual Report of the Government Botanist* (15 Apr. 1863), p. 16-18 entitled 'Enumeration of the plants collected by Dr J. Murray during Mr A. Howitt's Expedition into Central Australia in the year 1862'. A valuable collection of woods and some geological specimens were also brought back to Melbourne by Murray (with Howitt) on 27 Dec. His return to duty at the Melbourne Hospital was recorded at a meeting of the Committee of Management on 2 Jan. 1863, but at the Committee's meeting on 3 Mar. his retirement was noted. It is possible that the brevity of Murray's later association with Melbourne Hospital may be somehow connected with his exceeding the period of official leave by more than 6 months. He is not known to have done any subsequent botanical work, and the date of his death remains unknown. Murray received a salary of £300 for his year's work with Howitt.

#### ALFRED WILLIAM HOWITT

Howitt himself contributed a small number of specimens (representing some 25 species) from his 5 sorties in the north-eastern sector of South Australia during Mar.—Oct. 1862. These journeys from the Cooper Cr. base camp were chiefly ethnological and may be summarized briefly thus:



1. 5 Mar. to 2 Apr.—  
Down Cooper and Strzelecki Cr. to Blanchewater, then NW. over stony plains to Baker's Station (?Appendraina Water), L. Hope, and back along Cooper Cr.
2. 12 Apr. to 1 May—  
N. to the Coongie-L. Goyder area.
3. 17 May to late June—  
SW. to Blanchewater and Paralana (Jacobs' Station between Mt Painter and the northern tip of L. Frome).
4. 3 July to 2 Aug.—  
N. and W. to Sturt's 'Stony Desert', Goyder's Lagoon and along the Diamantina R. to the Birdsville region (with Dr Murray).
5. 16 Aug. to late Sept.—  
To Blanchewater via L. Hope, then to Angipena Station in the heart of the northern Flinders Ra.
6. 10 Oct. to 8 Dec.—  
From Cooper Cr. depot to Adelaide, via L. Hope, Blanchewater and Angipena, bringing the remains of Burke and Wills. During this last visit to Blanchewater, Howitt investigated the possibility of a direct route to the Darling via Grey Ra. and Sturt's Depot at Providence Cr., but found the country droughty and impracticable 'excepting immediately after heavy general rains'.

**Chronological Arrangement of Dr H. Beckler's Collecting Places**

(derived from his labels on specimens in the National Herbarium of Victoria)

Each locality is numbered and, where collections were made at the same place a second or third time, the numbers are suffixed by 'a' (up to and including Jan. 1861), 'b' (Feb.) or 'c' (Mar.-July 1861).

Date	Locality No.	Locality
1860		
Sept.		
14	1	Wakool R., N.S.W.
15	2	L. Yanga, N.S.W., 6-7 m. SE. of Balranald
17	3	Balranald
18	4	L. Paika ('Jin Sheepstation' of Beckler)
19-20	5	Tjerrikenkom ('Terikinkom' of Beckler)
21	6	Prungle House near Moonlight Tank ('Prangal' of Beckler, also 'undulating hills called Fargate Range')
24	7	Coles Waterhole
28	8	Arumpo House near Wall of China ('Arumpo' of Beckler)
29	9	Arumpo House 14 m. NNW. to Garnpang ('Aurompo' to 'Conpang' of Beckler; 'Amompoo Company' of Mueller)
Oct.		
9	10	Bilbarka on Darling R., about 3 m. above Pooncarie or 'Macpherson's Station'
12	11	Near Tolarno on Darling ('Mr Cloud's Station' of Beckler)
14	12	20 m. downstream from Menindee
15	13	Menindee (sometimes rendered 'Meninville' by Benthann)
26, 28, 31	14a <sub>1</sub>	L. Pamamaroo, the base camp on Darling R. about 8 m. above Menindee ('Bamamero' and 'Bambamero' of Beckler; 'Bamancero', 'Banaroo' and 'Bambamero' of Mueller)
Nov.		
1-5	14a <sub>2</sub>	L. Pamamaroo

Date	Locality No.	Locality
5-7	15a	Scrope Ra. in vicinity of Kokriega Well or Burke's Cave, about 43 m. E. of Broken Hill ('Goginga Mountains' of Beckler; 'Goginya', 'Goyinga', 'Gozinga', 'Guginga', 'Yayinga', 'Yayinya', 'Yuyinga', 'Yuyingee', 'Toguya' etc. of Mueller and Bentham)
8, 21-22, 24 Dec.	14a	L. Pamamaroo ('clay flats on the Darling' etc.)
24	16	Noonthorangee Cr. ('Nandurungee' of Beckler; 'Naudthcrungee' and 'Nandirooga' of Mueller)
27	17a	Torowoto Swamp, about 44 m. ESE. of Milparinka ('Duroadoo' of Beckler; 'Duroodoo', 'Duradoo' or 'Tooroodoo' of Mueller and Bentham)
28	18	Torowoto to 'Nangarna' ('Nangavera' of Bentham)
29	19	'Nangawera to Yellowinchi', just N. of Mt Koonenberry
31	20	Mt Koonenberry, the focal point of Coturaundee Ra. ('Goning-beri' of Beckler; 'Goningbear' and 'Goningbery' of Bentham)
1861 Jan.		
1	21a	Wonominta and Noonthorangee Cr.
3	22a	Mootwingee ('Mootwanji' and 'Mutwanji' of Beckler; 'Mutanie Ranges' of Bentham)
Feb. 4-6	23	Nootumbulla Cr., 7-8 m. N. of Mootwingee ('Nothangbulla' of Beckler), also Bengoro Ra. ('Binguro' of Beckler)
8	21b	Noonthorangee and Wonominta Cr.
13-18 Mar.	17b	Torowoto Swamp ('Duroadoo' of Beckler)
3	17c	Torowoto Swamp
12, 17		No locality given, but perhaps 'Rat Point' of W. Wright
19, 22	24	Near Caryapundy Swamp and Puria Cr., almost on the Queensland border ('Cariapundi' of Beckler)
31	25	No locality given, but probably Kooliatoo Cr. between Queensland border and Bulloo L.—Beckler's most northerly collecting site
June 12	21c	Wonominta Cr. ('Wanamant' and 'Monument' of Bentham)
13	22c	Noonthorangee and Mootwingee
15-16	26	'Bodurga to Pilpa', just N. of Scrope Ra.
17	15c	Scrope Ra. ('Goginga Glen' of Beckler)
18-29	14c	L. Pamamaroo ('sand hills near the Darling')

### List of Species and Collections

The present systematic arrangement follows that of Engler and Prantl in *Die Natürlichen Pflanzenfamilien* (1887-1902). Nomenclature has been brought up to date, and the names here adopted often differ from those cited in Bentham's *Flora Australiensis*.

B = Beckler (followed by number of collecting site—*vide* No. 1-26 in the Chronological Arrangement).

W = Wheeler (all from 'between Stokes Range and Cooper's Creek', unless otherwise stated).

M = Murray (all from Cooper Cr., near depot, unless otherwise stated).

H = Howitt (locality written in full—all in NE. South Australia).

Wright (name and locality written in full).

Species	Collector	Locality
<b>PTERIDOPHYTA</b>		
<b>ADIANTACEAE</b>		
<i>Cheilanthes distans</i> (R. Br.) Mett.	B	15a
<i>C. lasiophylla</i> Pichi-Sermolli	B	20

Species	Collector	Locality
ASPLENIACEAE		
<i>Pleurosorus rutifolius</i> (R. Br.) Fee	B	15a
MARSILEACEAE		
<i>Marsilea drummondii</i> A. Br.	M	Wills's Cr.
SPERMATOPHYTA—GYMNOSPERMAE		
CUPRESSACEAE		
<i>Callitris columellaris</i> F. Muell.	B	20
SPERMATOPHYTA—ANGIOSPERMAE		
GRAMINEAE		
<i>Tragus australionus</i> S. T. Blake	B W	14a <sub>s</sub>
<i>Neurachne mitchelliana</i> Nees	B	15a
<i>N. muuroi</i> F. Muell.	B	15a
<i>Panicum effusum</i> R. Br.	B	14a <sub>1</sub> , 16a
<i>P. decompositum</i> R. Br.	M	
<i>P. ? whitei</i> J. M. Black	M	Not in Herb. Melb.
<i>Digitario ammophila</i> (Benth.) D. K. Hughes	B	20
<i>D. brownii</i> (Roem. & Schult.) D. K. Hughes	B	15a
<i>Plagiosctum refractum</i> (F. Muell.) Benth.	M	TYPE
<i>Zygochloa paradoxa</i> (R. Br.) S. T. Blake	B W	14a <sub>s</sub>
<i>Amphipogon caricinus</i> F. Muell.	B	16
<i>Aristida contorta</i> F. Muell.	B ?M	16
<i>Stipa elegantissima</i> Labill.	B	10
<i>Eriachne helmsii</i> Domin	B	16
<i>Triraphis mollis</i> R. Br.	B M	15a
<i>Triodia scariosa</i> N. T. Burbridge	B	9
<i>Eragrostis australosica</i> (Steud.) C. E. Hubbard	B	16, 18
<i>E. setifolia</i> Nees	B	14a <sub>1</sub>
<i>E. dielsii</i> Pilger	B W	14a <sub>1</sub>
<i>Poa fax</i> J. H. Willis & A. B. Court	H	No locality
<i>Bromus arenarius</i> Labill.	B	9—TYPE
<i>Chloris acicularis</i> Lindl.	B	14a <sub>1</sub>
<i>Astreblo pectinata</i> F. Muell.	B	14a <sub>s</sub>
<i>Dactyloctenium radulans</i> (R. Br.) Pal. Beauv.	B M	20
CYPERACEAE		
<i>Cyperus exaltatus</i> Retz.	B	?14—not in Herb. Melb.
<i>C. vaginatus</i> R. Br.	M	
<i>Eleocharis acuto</i> R. Br.	B	?14—not in Herb. Melb.
<i>E. pollens</i> (Benth.) S. T. Blake	B	17b, 17c
<i>Fimbristylis dichotoma</i> (L.) Vahl	B ?M	16
LILIACEAE		
<i>Lomandra leucocephala</i> (R. Br.) Ewart	B	9
<i>Tricoryne elotior</i> R. Br.	B	'Darling R. to Cooper's Cr. —not in Herb. Melb.
<i>Bulbine semibarbata</i> (R. Br.) Haw.	W	
AMARYLLIDACEAE		
<i>Crinum flaccidum</i> Herb.	M	
<i>Calostemma luteum</i> Sims	M	'S. of Wills's Cr.'

Species	Collector	Locality
CASUARINACEAE		
<i>Casuarina cristata</i> Miq.	B	14a <sub>2</sub> , 14a <sub>3</sub> , 15a
PROTEACEAE		
<i>Hakea leucoptera</i> R. Br.	B M	14a <sub>3</sub> , 17a, 17b
<i>Grevillia pterosperma</i> F. Muell.	M	
<i>G. striata</i> R. Br.	B M	?14—'Darling Desert'
SANTALACEAE		
<i>Exocarpos aphyllus</i> R. Br.	B	14a <sub>2</sub>
<i>E. strictus</i> R. Br.	B	10
<i>Santalum acuminatum</i> (R. Br.) A.DC.	B	14a <sub>2</sub>
<i>S. lanceolatum</i> R. Br.	B M	15a
LORANTHACEAE		
<i>Lysiana exocarpi</i> (Behr) Van Tiegh.	M	
<i>Amyema linophylla</i> (Fenzl) Van Tiegh.	?	Not in Herb. Melb.
<i>A. preissii</i> (Miq.) Van Tiegh.	B M	20
<i>A. miraculosa</i> (Miq.) Van Tiegh.	B	20
<i>A. quandang</i> (Lindl.) Van Tiegh.	B M	15a
<i>Diplatia grandibracteata</i> (F. Muell.) Van Tiegh.	M	
POLYGONACEAE		
<i>Rumex brownii</i> Campd.	B	10
<i>Polygonum plebejum</i> R. Br.	W M	
<i>P. attenuatum</i> R. Br.	B W M	'near Darling'
<i>Muchlenbeckia cunninghamii</i> (Meissn.) F. Muell.)	B	20, 14c
CHENOPODIACEAE		
<i>Rhagodia gaudichaudiana</i> Moq.	B	14a <sub>1</sub>
<i>R. spinescens</i> R. Br.	B M	6, 15a
<i>R. nutans</i> R. Br.	B W M	15a, 17a, 17b, 26
<i>Chenopodium nitrariaceum</i> (F. Muell.) F. Muell. ex Benth.	B	14a <sub>3</sub>
<i>C. cristatum</i> (F. Muell.) F. Muell.	B	?14, 16
<i>C. carinatum</i> R. Br.	B	'Darling R.'—not in Melb. Herb.
<i>C. atriplicinum</i> (F. Muell.) F. Muell.	B	14a <sub>3</sub> —'clay flats'
<i>C. auricomum</i> Lindl.	B	17a
<i>Dysphania littoralis</i> R. Br.	M	'S. of Wills's Cr.'
<i>Atriplex nummularia</i> Lindl.	B	11, 14a <sub>1</sub> , 14a <sub>3</sub> , 25
<i>A. stipitata</i> Benth.	H B	'in the interior' 'Darling Desert', 17b
<i>A. hymenotheca</i> Moq.	H	Cooper Cr.
<i>A. velutinella</i> F. Muell.	B	11, 14a <sub>1</sub>
<i>A. muelleri</i> Benth.	B	14a <sub>3</sub> , 17a, 20
<i>A. semibaccata</i> R. Br. var <i>microcarpa</i> (Benth.) Aellen	H	'in the interior'
<i>A. eardleyae</i> Aellen	B B	14a <sub>1</sub> —TYPE of var. 14a <sub>3</sub>

Species	Collector	Locality
<i>A. limbata</i> Benth.	B	11, 25
<i>A. inflata</i> F. Muell.	B	8
	H	'towards Cooper's Cr.'
<i>A. spongiosa</i> F. Muell. var. <i>holocarpa</i> (F. Muell.) J. M. Black	B	13, 18
	W	
<i>Bassia eriacantha</i> (F. Muell.) R. H. Anderson	B	'Darling Desert'—TYPE
<i>B. bicornis</i> (Lindl.) F. Muell.	B	19
	M	
<i>B. bicuspis</i> F. Muell.	W	
<i>B. stelligera</i> (F. Muell.) F. Muell.	B	14a <sub>2</sub> , 14a <sub>3</sub>
<i>B. brachyptera</i> (F. Muell.) R. H. Anderson	B	8
	W	
	M	
<i>B. paradoxa</i> (R. Br.) F. Muell.	B	14a <sub>1</sub> , ?'Rat Point' beyond Torowoto
<i>B. biflora</i> (R. Br.) F. Muell.	B	14a <sub>2</sub>
<i>B. obliquicuspis</i> R. H. Anderson	B	6
<i>B. lanicuspis</i> (F. Muell.) F. Muell.	B	19—TYPE
<i>Babbagia dipteroarpa</i> F. Muell.	W	
	M	
<i>Kochia lobiflora</i> F. Muell.	B	14a <sub>1</sub> , 14a <sub>2</sub> —TYPE
<i>K. pyramidata</i> Benth.	B	6, 17a, 14c
<i>K. eriantha</i> F. Muell.	W	
<i>K. appressa</i> Benth.	B	19
	M	
<i>K. tomentosa</i> (Moq.) F. Muell.	B	15a, 15c, 24
var. <i>tenuifolia</i> F. Muell.	M	
<i>K. sedifolia</i> F. Muell.	B	20
<i>K. aphylla</i> R. Br.	B	4, ?'Rat Point' beyond Torowoto
<i>K. triptera</i> Benth.	B	26, 14c—TYPE
<i>Salsola kali</i> L.	B	13, 19, 24
	W	
	M	
<i>Enchylaena tomentosa</i> R. Br.	B	15a, 14c
	M	
<i>Threlkeldia salsuginosa</i> (F. Muell.) Benth.	M	
<i>Arthrocnemum leiostachyum</i> (Benth.) Paulsen	H	Kyejeron Cr.
<i>Pachycornia tenuis</i> (Benth.) J. M. Black	B	8—TYPE
	H	'in the interior'—TYPE
AMARANTHACEAE		
<i>Ptilotus obovatus</i> (Gaudich.) F. Muell.	B	20, 17b
	H	Flinders Ra.
<i>P. alopecuroideus</i> (Lindl.) F. Muell.	B	14a <sub>3</sub> , 16, 20
	M	
<i>P. murrayi</i> F. Muell.	M	'towards Wills's Cr.'—TYPE
<i>P. latifolius</i> R. Br.	M	'between Cooper's Cr. and Stony Desert'
<i>Alternanthera nodiflora</i> R. Br.	B	14a <sub>1</sub> , 14a <sub>3</sub>
<i>A. denticulata</i> R. Br.	M	'S. of Wills's Cr.'
NYCTAGINACEAE		
<i>Boerhavia diffusa</i> L.	B	19
	M	
GYROSTEMONACEAE		
<i>Codonocarpus cotinifolius</i> (Desf.) F. Muell.	B	16, 21b, 26
FICOIDACEAE		
<i>Disphyma australe</i> (Soland.) J. M. Black	B	5

Species	Collector	Locality
<i>Tetragonia tetragonioides</i> (Pallas) O. Kuntze	B	13
<i>Gunniopsis quadrifida</i> (F. Muell.) Pax	B	18, 19
<i>Trianthema decandra</i> L.	M	'between Cooper's and Wills's Cr.'
<i>Glinus orygioides</i> F. Muell.	B	24
<i>Mollugo cerviana</i> (L.) Ser.	Wright	Cooper Cr.
	B	22a
PORTULACACEAE		
<i>Portulaca oleracea</i> L.	M	
<i>P. filifolia</i> F. Muell.	M	
<i>Calandrinia remota</i> J. M. Black	B	17a
<i>C. balomensis</i> Lindl.	M	'S. of Wills's Cr.'
<i>C. volubilis</i> Benth.	B	14a, 14a, 15a
<i>C. calyptrata</i> Hook. f.	B	2
<i>C. pumila</i> F. Muell.	B	19
CARYOPHYLLACEAE		
<i>Spergularia rubra</i> (L.) J. & C. Presl	B	'Darling R.'—not in Herb. Melb.
CAPPARIDACEAE		
<i>Capparis mitchellii</i> Lindl.	B	'100-mile Cr.'
	M	
CRUCIFERAE		
<i>Blennodia trisecta</i> (F. Muell.) Benth.	B	4, 13
<i>B. nasturtium</i> (F. Muell.) Druce	B	?14
<i>B. blennodioides</i> (F. Muell.) Druce	B	8, 22a, 26, 14c
	W	
	M	
<i>B. cardaminoides</i> (F. Muell.) Benth.	B	?14—TYPE from 'Darling R.'
<i>B. canescens</i> R. Br.	B	?14
<i>B. eremigera</i> (F. Muell.) Benth.	B	14a—TYPE
<i>Alyssum linifolium</i> Steph. ex Willd.	B	'near Darling'
<i>Lepidium papillosum</i> F. Muell.	W	
<i>Stenopetalum vclutinum</i> F. Muell.	W	
<i>S. nutans</i> F. Muell.	W	TYPE
CRASSULACEAE		
<i>Crassula sieberiana</i> (Schultes) Ostenf.	B	15a
PITTOSPORACEAE		
<i>Pittosporum phillyroides</i> DC.	B	15a
MIMOSACEAE		
<i>Acacia peuce</i> F. Muell.	M	'N. of Wills's Cr.'—TYPE
<i>A. microcarpa</i> F. Muell.	B	?14 on 'plains of Darling R.'
<i>A. brachybotrya</i> Benth.	B	3, 9
<i>A. victoriac</i> Benth.	B	14a, 14a
<i>A. murrayana</i> F. Muell.	M	TYPE
<i>A. salicina</i> Lindl.	B	17b, 25, 21c, 22c, 26
	M	
<i>A. sp.</i> (aff. <i>A. pycnantha</i> )	B	26
<i>A. tetragonophylla</i> F. Muell.	B	15a
	M	
<i>A. homalophylla</i> A. Cunn. ex Benth.	B	5
	M	
<i>A. stenophylla</i> A. Cunn. ex Benth.	B	17c
	W	

Species	Collector	Locality
<i>A. oswaldii</i> F. Muell.	B M	15a, 14a <sub>s</sub>
<i>A. rigens</i> A. Cunn. ex G. Don	B	9
<i>A. ancura</i> F. Muell.	M	No locality
<i>A. brachystachya</i> Benth.	B	22a—TYPE
<i>A. farnesiana</i> Willd.	M	
CAESALPINIACEAE		
<i>Cassia pleurocarpa</i> F. Muell.	B	20
<i>C. pruinosa</i> F. Muell.	W	
<i>C. circinnata</i> Benth. in Mitch.	B	20, 21a, 21c, 26
<i>C. phyllodinea</i> R. Br.	B M	15a, 19
<i>C. artemisioides</i> Gaudich.	B	15a, 19, 20, 22c, 26
<i>C. sturtii</i> R. Br.	B	5, 8, 10, 14a <sub>s</sub> , 14c, 15a, 15c, 20, 22c, 26
	W	
	M	
<i>C. desolata</i> F. Muell.	B	15a, 20, 26
	M	
<i>C. eremophila</i> A. Cunn. ex Vog. var. <i>platypoda</i> Benth.	M B	20, 24
<i>Petalostylis labicheoides</i> R. Br.	B	23
<i>Bauhinia carronii</i> F. Muell.	M	
PAPILIONACEAE		
<i>Eutaxia microphylla</i> (R. Br.) J. M. Black	B	9
<i>Isotropis wheeleri</i> F. Muell. ex Benth.	W	TYPE
<i>Bossiaea walkeri</i> F. Muell.	B	'towards Barrier Ra.'
<i>Templetonia egena</i> (F. Muell.) Benth.	B	3
<i>Crotalaria cunninghamii</i> R. Br.	W M	Near Cooper Cr. 'within 50 m. of Stony Desert'
<i>C. eremaea</i> F. Muell.	B W	17a
<i>Trigonella suavissima</i> Lindl.	B M	14a <sub>s</sub> 'flooded ground N. of Stony Desert'
<i>Lotus cruentus</i> A. B. Court	B M	14a <sub>2</sub>
<i>Psoralea patens</i> Lindl.	B M	14a <sub>1</sub>
<i>P. eriantha</i> Benth.	B	14a <sub>1</sub>
<i>Sesbania aculeata</i> Poir.	M	
<i>Chianthus formosus</i> (G. Don) N. Ford & J. W. Vickery	H B	'Flinders Ra.'
<i>Swainsona greyana</i> Lindl.	B	14, 14a <sub>2</sub>
<i>S. oligophylla</i> F. Muell.	B W	9—TYPE, 20, 21b
<i>S. oroboides</i> F. Muell.	H	'in the interior'
<i>S. laxa</i> R. Br.	B	14a <sub>1</sub>
<i>S. stipularis</i> F. Muell.	B W	14c
	H	Flinders Ra.
<i>S. fissimontana</i> J. M. Black	B	20
<i>S. phacoides</i> Benth.	B M	16, 19 'S. of Wills's Cr.'
<i>S. microphylla</i> A. Gray	B	14a <sub>1</sub>
<i>Glycine sericea</i> (F. Muell.) Benth.	W	
<i>G. clandestina</i> J. Wendl.	B	15a

Species	Collector	Locality
<i>Rhynchosia minima</i> (L.) DC.	B	20
<i>Vigna lanceolata</i> Benth.	M	'S. of Wills's Cr.'
ZYGOPHYLLACEAE		
<i>Zygochillum ammophilum</i> F. Muell.	B	14a <sub>s</sub>
<i>Z. fruticosum</i> DC.	B	5
<i>Z. howittii</i> F. Muell.	M	'near Wills's Cr.'—TYPE
<i>Tribulus terrestris</i> L.	M	
<i>T. hystrix</i> R. Br.	M	
RUTACEAE		
<i>Geijera parviflora</i> Lindl.	B	'near Darling'
<i>Flindersia maculosa</i> (Lindl.) F. Muell.	B	20
MELIACEAE		
<i>Owenia acidula</i> F. Muell.	B	17a
	M	
EUPHORBIACEAE		
<i>Phyllanthus rigens</i> Muell.-Arg.	B	22a—TYPE
<i>P. ramosissimus</i> (F. Muell.) Muell.-Arg.	B	15a
<i>P. trachyspermus</i> F. Muell.	M	
<i>Adriana hookeri</i> (F. Muell.) Muell.-Arg.	M	
<i>Euphorbia australis</i> Boiss.	B	'near Barrier Ra.'—TYPE
		<i>E. erythrantha</i> F. Muell.
<i>E. drummondii</i> Boiss.	B	20
	M	'interior'
<i>E. wheeleri</i> Baill.	W	TYPE
<i>E. eremophila</i> A. Cunn. in Mitch.	B	'near Darling'
	W	
	H	Cooper Cr.
SAPINDACEAE		
<i>Atalaya hemiglauca</i> F. Muell.	B	17b, 24
	W	
	H	Cooper Cr.
<i>Dodonaea cuneata</i> Rudge	B	22a
<i>D. attenuata</i> A. Cunn. in Field	B	14a <sub>1</sub> , 20, 22a
	W	
<i>D. lobulata</i> F. Muell.	B	15a, 22a
MALVACEAE		
<i>Lavatera plebeja</i> Sims	B	8
	M	Wills's Cr.
<i>Malvastrum spicatum</i> (L.) A. Gray	B	15a, 19
	M	
<i>Sida corrugata</i> Lindl.	B	19
	M	
	H	Flinders Ra.
<i>S. goniocarpa</i> (F. Muell.) Domin	B	19—TYPE
<i>S. fibulifera</i> Lindl.	B	15a, 20
	V	
<i>S. trichopoda</i> F. Muell.	B	14a <sub>s</sub> , 15a
<i>S. pedunculata</i> A. Cunn. ex Domin	B	20
<i>S. sp.</i>	B	19
<i>S. intricata</i> F. Muell.	B	6, 14a <sub>1</sub> , 18
<i>S. petrophila</i> F. Muell.	B	15a
	W	
	H	Angipena Station



Species	Collector	Locality
<i>Abutilon leucopetalum</i> (F. Muell.) F. Muell. ex Benth.	B W H	20 Flinders Ra.
<i>A. otocarpum</i> F. Muell.	B W	15a, 16, 18, 20
<i>A. theophrasti</i> Medic.	Wright	Cooper Cr.
<i>A. halophilum</i> F. Muell.	B W	15a
<i>A. fraseri</i> Hook. [var. <i>parviflora</i> Benth.	B	20
<i>Hibiscus brachysiphonius</i> F. Muell.	B	15a—not in Herb. Melb.
<i>H. sturtii</i> Hook. [var. <i>grandiflora</i> Benth.	B	20—TYPE of var.
<i>H. krichauffianus</i> F. Muell.	B	20
<i>Gossypium sturtianum</i> J. H. Willis	?M B H	Cooper Cr. 22a Flinders Ra.
ELATINACEAE		
<i>Bergia trimera</i> Fisch. & Mey.	M	
FRANKENIACEAE		
<i>Frankenia foliosa</i> J. M. Black	B M	20
THYMELAEACEAE		
<i>Pimelea simplex</i> F. Muell.	B	15a
<i>P. microcephala</i> R. Br.	B	14a <sub>1</sub> , 17a, 21c
LYTHRACEAE		
<i>Lythrum hyssopifolia</i> L.	B	17a
<i>Ammannia multiflora</i> Roxb.	B	17c
MYRTACEAE		
<i>Eucalyptus largiflorens</i> F. Muell.	B	14a <sub>1</sub> , 14a <sub>2</sub> , 14a <sub>3</sub>
<i>E. microtheca</i> F. Muell.	B	17b, 24
<i>E. dumosa</i> A. Cunn. ex Schauer	M	
<i>E. incrassata</i> Labill.	B	7
<i>E. camaldulensis</i> Dehnh.	B	9
<i>E. oleosa</i> F. Muell.	B	10, 14a <sub>2</sub>
<i>E. gracilis</i> F. Muell.	W	
<i>Leptospermum laevigatum</i> (Gaertn.) F. Muell.	H	Cooper Cr.
var. <i>minus</i> F. Muell.	B	5
<i>Callistemon brachyandrus</i> Lindl.	B	5, 7
ONAGRACEAE		
<i>Jussieua repens</i> L.	W M	Not in Herb. Melb.
HALORAGACEAE		
<i>Haloragis heterophylla</i> Brongn.	B	14a <sub>1</sub>
<i>H. glauca</i> Lindl.	M	
<i>Myriophyllum verrucosum</i> Lindl.	B M	20
UMBELLIFERAE		
<i>Hydrocotyle trachycarpa</i> F. Muell.	B	10, 17b
<i>Trachymene glaucifolia</i> (F. Muell.) Benth.	B	17a
<i>Daucus glochidiatus</i> (Labill.) Fisch. et al.	H	Flinders Ra.
	B	14a <sub>2</sub>

Species	Collector	Locality
OLEACEAE		
<i>Jasminum lineare</i> R. Br.	B	15a
LOGANIACEAE		
<i>Logania nuda</i> F. Muell.	B	'desert of Murray and Darling'—not in Herb. Melb.
GENTIANACEAE		
<i>Centaurium spicatum</i> (L.) Druce	B	14a <sub>1</sub> , 14a <sub>2</sub>
APOCYNACEAE		
<i>Parsonsia eucalyptophylla</i> F. Muell.	B	20, 22a—TYPE
ASCLEPIADACEAE		
<i>Sarcostemma australe</i> R. Br.	B	20
<i>Cynanchum floribundum</i> R. Br.	B	15a
<i>Marsdenia australis</i> (R. Br.) Druce	B W	20
CONVOLVULACEAE		
<i>Convolvulus erubescens</i> Sims	B	14a <sub>1</sub> , 14a <sub>2</sub>
<i>Cressa cretica</i> L.	B	'Darling R.', 17c
<i>Evolvulus alsinoides</i> L.	M	
BORAGINACEAE		
<i>Halgania cyanea</i> Lindl.	B	9
<i>Coldenia procumbens</i> L.	M	
<i>Heliotropium ovalifolium</i> Forsk.	M	
<i>H. flaginoides</i> Benth.	H	Cooper Cr.
<i>Trichodesma zeylanicum</i> (Burm.) R. Br.	B W M	20
<i>Omphalolappula concava</i> (F. Muell.) Brand	B W	'Darling R.'
VERBENACEAE		
<i>Verbena officinalis</i> L.	B	14a <sub>1</sub>
LABIATAE		
<i>Ajuga australis</i> R. Br.	B	2
<i>Teucrium racemosum</i> R. Br.	B W M	12, 14a <sub>1</sub>
<i>Mentha australis</i> R. Br.	B M	14a <sub>2</sub>
<i>Prostanthera striatiflora</i> F. Muell.	B W	15a
SOLANACEAE		
<i>Solanum nigrum</i> L.	B	'near Darling'
<i>S. parvifolium</i> R. Br.	B	15a—TYPE <i>S. leptophyllum</i> F. Muell.
<i>S. esuriale</i> Lindl.	B W M	14a <sub>2</sub> , 15a, 16, 20
<i>S. chenopodium</i> F. Muell.	B M	14a <sub>2</sub> , 17a, 20
<i>S. sturtianum</i> F. Muell.	M M H	'S. of Wills's Cr.'
<i>S. lacunarium</i> F. Muell.	B	Flinders Ra.
<i>S. petrophilum</i> F. Muell.	B H	10 21a, 22a, 26 Flinders Ra.

Species	Collector	Locality
<i>S. ellipticum</i> R. Br.	B M	15a, 20
<i>Nicotiana velutina</i> H. Wheeler	B W	14a
<i>Duboisia hopwoodii</i> F. Muell.	M B	Wills's Cr. 8—very rare
<b>SCROPHULARIACEAE</b>		
<i>Mimulus gracilis</i> R. Br.	B	17b, 17c, 21c, 15c
<i>M. prostratus</i> Benth.	H	'S. of Wills's Cr.'
<i>Morgania floribunda</i> Benth.	B W M	10, 12
	Wright	'between Wills's Cr. and Stony Desert' Cooper Cr.
<b>PEDALIACEAE</b>		
<i>Josephinia eugeniae</i> F. Muell.	M	'Cooper's Cr. at the N. branch', Kyejeron
<b>ACANTHACEAE</b>		
<i>Justicia procumbens</i> L.	B W M	15a, 20 Flinders Ra.
<b>MYOPORACEAE</b>		
<i>Myoporum montanum</i> R. Br.	B M	26
<i>M. deserti</i> A. Cunn. ex Benth.	B	14a, 14c
<i>M. platycarpum</i> R. Br.	B	14a, 15a, 21a
<i>Eremophila oppositifolia</i> R. Br.	B	15a
<i>E. ?paisleyi</i> F. Muell.	B	14a <sub>1</sub>
<i>E. sturtii</i> R. Br.	B W	11
<i>E. latrobei</i> F. Muell.	B W M	20
<i>E. longifolia</i> (R. Br.) F. Muell.	B M	14a <sub>1</sub> , 22a, 26
<i>E. divaricata</i> (F. Muell.) F. Muell.	B	13
<i>E. freelingii</i> F. Muell.	W M	
<i>E. goodwinii</i> F. Muell.	B W	22c, 26
<i>E. scoparia</i> (R. Br.) F. Muell.	B M	21b
<i>E. bignoniiflora</i> (Benth.) F. Muell.	B	14a <sub>2</sub>
<i>E. polyclada</i> (F. Muell.) F. Muell.	B	14a <sub>1</sub> , 14a <sub>2</sub> , 14a <sub>3</sub>
<i>E. duttonii</i> F. Muell.	B	26
<i>E. maculata</i> (Ker) F. Muell.	Wright B W M	Cooper Cr. 10, 14a <sub>1</sub> , 17c
<i>E. latifolia</i> F. Muell.	B	15a
<i>E. glabra</i> (R. Br.) Oстенf.	B	9, 15a
<i>E. dalyana</i> F. Muell.	W	TYPE—not in Herb. Melb.
<i>E. macdonnellii</i> F. Muell.	M	Cooper Cr., 'S. of Wills's Cr.'
	Wright	Cooper Cr.
<b>PLANTAGINACEAE</b>		
<i>Plantago pritzelii</i> Pilger	B W	6, 14a <sub>2</sub> , 15a

Species	Collector	Locality
<b>RUBIACEAE</b>		
<i>Synaptantha tillaeacea</i> (F. Muell.) Hook. f.	B M	17a—TYPE Cooper & Wills's Cr.— TYPE
<i>Dentella pulvinata</i> Airy-Shaw	M	
<i>Galium geminifolium</i> F. Muell.	B	14a <sub>2</sub>
<b>CUCURBITACEAE</b>		
<i>Cucumis chate</i> Hasselq.	M	Cooper & Wills's Cr.
<b>CAMPANULACEAE</b>		
<i>Cephalostigma fluminale</i> J. M. Black	B W M	10, 11, 14a <sub>1</sub>
<b>LOBELIACEAE</b>		
<i>Isotoma petraea</i> F. Muell.	B W	15a
<b>GOODENIACEAE</b>		
<i>Goodenia geniculata</i> R. Br.	B	9
<i>G. cycloptera</i> R. Br.	B W	16
<i>G. pinnatifida</i> Schlechtendal	B H	3, 10 Cooper Cr.
<i>G. glauca</i> F. Muell.	?H	'L. Torrens to Wills's & Cooper's Cr.'—not in Herb. Melb.
<i>var. glandulosa</i> Benth.	B	15a—TYPE of var.
<i>G. heteromera</i> F. Muell.	B	11, 12, 14a <sub>1</sub> , 14a <sub>3</sub>
<i>Velleia paradoxa</i> R. Br.	B	15a
<i>Leschenaultia divaricata</i> F. Muell.	W M	Cooper Cr.—TYPE
<i>Scaevola spinescens</i> R. Br.	B	15a
<i>S. depauperata</i> R. Br.	W	Cooper Cr.—TYPE S. <i>patens</i> F. Muell.
<i>S. ovalifolia</i> R. Br.	B M	20
<b>COMPOSITAE</b>		
<i>Brachycome melanocarpa</i> Sond. & F. Muell.	B	12, 13
<i>B. lineariloba</i> (DC.) Druce	B	14c
<i>B. leptocarpa</i> F. Muell.	B	'Darling R.'
<i>B. exilis</i> Sond.	B	14a <sub>1</sub>
<i>Minuria leptophylla</i> DC.	B W	15a, 18
<i>M. cunninghamii</i> (DC.) Benth.	B	13, 15a
<i>M. integerrima</i> (DC.) Benth.	B M	17b
<i>M. denticulata</i> (DC.) Benth.	B	? 'Rat Point' beyond Toro- woto, 24
<i>Calotis cuneifolia</i> R. Br.	B	20, 17b
<i>C. erinacea</i> Steetz	W	
<i>var. parviflora</i> Benth.	B	17a—TYPE of var.
<i>C. scabiosifolia</i> Sond. & F. Muell.	B	14a <sub>1</sub>
<i>C. scapigera</i> Hook.	B	12
<i>C. multicaulis</i> (Turcz.) Druce	B	13, 15a, 20
<i>C. porphyroglossa</i> F. Muell.	M	TYPE
<i>C. hispidula</i> (F. Muell.) F. Muell.	B W	4, 15a
<i>Vittadinia triloba</i> (Gaudich.) DC.	M B	'N. of Stony Desert' 20

Species	Collector	Locality
<i>V. pterochaeta</i> (F. Muell.) J. M. Black	B	'Darling Desert'—not in Herb. Melb.
<i>Podocoma cuneifolia</i> R. Br.	B	20
<i>Olearia subspicata</i> (Hook.) Benth.	B	9
<i>O. lepidophylla</i> (Pers.) Benth.	B	'Darling R.'
<i>O. pimeleoides</i> (DC.) Benth.	B	14a <sub>2</sub>
<i>O. magniflora</i> F. Muell.	B	2—TYPE
<i>O. muelleri</i> (Sond.) Benth.	B	3, 14a <sub>1</sub>
<i>O. decurrens</i> (DC.) Benth.	B	15a
<i>Siegesbeckia orientalis</i> L.	B	15a
<i>Centipeda cunninghamii</i> (DC.) A. Br. & Aschers.	B	10, 14a <sub>1</sub> , 21c
	M	
<i>Isoëtopsis graminifolia</i> Turcz	B	14c
<i>Elachanthus pusillus</i> F. Muell.	B	'Darling R.'
<i>Pluchea rubelliflora</i> (F. Muell.) J. M. Black	B	'Darling R.', 23
<i>Cratystylis conocephala</i> (F. Muell.) S. Le M. Moore	B	'Darling R.'—not in Herb. Melb.
<i>Epaltes cunninghamii</i> (Hook.) Benth.	B	17b
	W	
<i>E. australis</i> Less.	M	
<i>Gnaphalium involucratum</i> Forst. f.	B	'Darling R.'—not in Herb. Melb.
<i>G. indicum</i> L.	B	'Darling R.'—not in Herb. Melb.
<i>Cassinia lacvis</i> R. Br.	B	22a, 26
<i>Helipterum floribundum</i> DC.	B	14a <sub>2</sub>
	W	
	M	'S. of Wills's Cr.'
<i>H. polygalifolium</i> DC.	B	'Darling R.'—not in Herb. Melb.
<i>H. cotula</i> (Benth.) DC.	B	14a <sub>1</sub> —TYPE <i>H. semisterile</i> F. Muell.
<i>H. hyalospermum</i> F. Muell. ex Benth.	B	'Darling R.'
<i>H. corymbiflorum</i> Schlechtendal	B	3
<i>H. strictum</i> (Lindl.) Benth.	B	15a
	W	
<i>H. pterochaetum</i> (F. Muell.) Benth.	B	20
<i>H. moschatum</i> (A. Cunn.) Benth.	B	10, 14c
	W	
	M	'S. of Wills's Cr.'
<i>Ixiolaena leptolepis</i> (DC.) Benth.	B	14a <sub>3</sub>
<i>I. tomentosa</i> Sond. & F. Muell.	B	20
	H	Flinders Ra.
<i>Helichrysum semifertile</i> F. Muell.	B	15a, 14a <sub>3</sub>
	W	
	M	'S. of Wills's Cr.'
<i>H. apiculatum</i> (Labill.) DC.	M	
<i>H. ambiguum</i> Turcz.	B	15a, 20—TYPE <i>H. semicalvum</i> F. Muell.
<i>H. podolepideum</i> F. Muell.	B	20, 21a
<i>Acanthocladium dockeri</i> F. Muell.	B	14a <sub>1</sub> —TYPE
<i>Leptorhynchus waitzia</i> Sond.	B	6
<i>Millotia myosotidifolia</i> Steetz	B	9
<i>M. greevesii</i> F. Muell.	B	'Sandhills near Darling'—TYPE
	W	
<i>Rutidosia helichrysoides</i> DC.	B	'Darling R.', 18, 20, 17b, 22c, 26
	M	Cooper Cr., 'S. of Wills's Cr.'

Species	Collector	Locality
<i>Podolepis canescens</i> A. Cunn. ex DC.	B	20
<i>P. capillaris</i> (Steetz) Diels	B	9
	W	
<i>Myriocephalus stuartii</i> (F. Muell. & Sond. ex Sond.) Benth.	B	10
	W	
	M	'S. of Wills's Cr.'
<i>M. rudallii</i> (F. Muell.) Benth.	M	TYPE
<i>Angianthus brachypappus</i> F. Muell.	B	5
<i>A. strictus</i> (Steetz) Benth.	B	'between Murray & Darling'—not in Herb. Melb.
<i>A. pusillus</i> (Benth.) Benth.	B	9, 14a <sub>1</sub>
<i>Gnephosis skirrophora</i> (Sond. & F. Muell.) Benth.	B	14a <sub>1</sub>
<i>G. gnephosioides</i> (F. Muell.) Druce	B	14a <sub>1</sub> —TYPE
<i>G. eriocarpa</i> (F. Muell.) Benth.	W	TYPE
<i>Eriochlamys behrii</i> Sond. & F. Muell.	B	8, 17a
	W	
<i>Calocephalus platycephalus</i> (F. Muell.) Benth.	B	24—TYPE
<i>Gnaphalodes uliginosum</i> A. Gray	B	5
<i>Craspedia pleiocephala</i> F. Muell.	B	12
	W	
<i>C. chrysantha</i> (Schlechtendal) Benth.	B	12
	M	
<i>Senecio gregorii</i> F. Muell.	B	9
	M	'S. of Wills's Cr.'
<i>S. glossanthus</i> (Sond.) Belcher	B	'Darling R.'
	W	
<i>S. magnificus</i> F. Muell.	H	Flinders Ra.
<i>S. lautus</i> Forst. f. ex Willd.	B	'Darling R.'
	W	
<i>S. cunninghamii</i> DC.	B	10, 14a <sub>2</sub>
	M	
<i>Picris hieracioides</i> L.	B	'Darling R. clay flats'

### Acknowledgement

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